

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BArch- SEMESTER– 3 EXAMINATION – SUMMER 2016

Subject Code: 1035002

Date: 10/05/2016

Subject Name: Building Construction III

Time: 02.30PM – 05.30PM

Total Marks: 40

Instructions:

1. Attempt all questions.
2. Assume suitable data wherever necessary and indicate in drawing/sketch.
3. Make suitable sketches wherever required.
4. Figures to the right indicate full marks.
5. Retain all construction lines.
6. Neatness of drawing and lettering is important.
7. Mention names and sizes of members wherever they are drawn.

- Q.1 (a)** For an opening of 900 width x 1200 height, at +750mm sill height, in 350 thick brick wall, draw the details of Steel window. Draw front elevation & plan using scale 1:10. **04**
- (b)** Draw enlarged details using 1:2 scale for the steel window given in Q. 1(a). **04**
- Q.2 (a)** Explain through neat freehand sketches the following steel Trusses: 1.King Post Truss, 2 Queen Post Truss, 3.North light Truss and 4.Bow String Truss. Also mention suitable span for each truss. **04**
- (b)** Draw a neat and proportionate sketch of Roof and explain the following terms : 1.Gable End, 2. Hipped roof, 3. Jack Rafters, and 4. Valley. **04**
- Q.3 (a)** Explain the difference between following terms including their uses: 1.P.C.C. & R.C.C., 2.P.P.C. & O.P.C. **04**
- (b)** Explain the following terms : 1. Mild Steel, 2. Tor Steel, 3. T.M.T. Bars, and 4.Corrosion Resistant Steel **04**
- OR**
- Q.3 (a)** Write a short note on Manufacturing Process of Cement. **04**
- (b)** Enlist different types of steel bars and sections available in market for construction industry and also mention their applications /uses. **04**
- Q.4 (a)** Draw Timber Ground Floor plan using scale 1:25, and mention names and sizes of timber members. **04**
- (b)** Draw a pair of Transverse sections for Timber Ground floor mentioned in Q.4 (a), and mention names and sizes of timber members. **04**
- Q.5 (a)** Write at least 10 basic principles of plumbing **04**
- (b)** Differentiate between two pipe plumbing system and one pipe plumbing system. **04**
- OR**
- Q.5 (a)** Draw in plan schematic drainage lay out of an individual residential unit from N.T. to Municipal M.H. **04**
- (b)** Draw in plan schematic water supply lay out of an individual residential unit, starting from entry to the plot up to overhead water tank. **04**

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